AMENDMENTS TO THE CLAIMS

This listing replaces all prior listings and versions of claims in the application.

1. (Currently Amended) A method for quantifying small particle LDL in a test sample, comprising:

(i) removing lipoproteins other than small particle LDL and HDL from said test sample by adding a separation agent comprising a polyanion, a divalent cation, and a monovalent cation, wherein the monovalent cation is at a final concentration of less than 50 mmol/L; ~~and~~ then

(ii) eliminating HDL by treating the test sample with cholesterol esterase and cholesterol oxidase in the presence of a surface active agent that is polyalkylene oxide; and

(iii) quantifying small particle LDL in ~~said~~ the test sample from step ~~(i)~~ (ii) by measuring the amount of LDL;

~~wherein step (i) comprises adding a separation agent comprising a polyanion and a divalent cation to said test sample~~.

2.-3. (Cancelled)

4. (Previously Presented) A method according to claim 1, wherein the polyanion is selected from the group consisting of heparin, phosphotungstic acid and dextran sulfate.

5. (Previously Presented) A method according to claim 1, wherein the divalent cation is selected from the group consisting of Mn^{2+}, Mg^{2+} and Ca^{2+}.

6. (Currently Amended) A method according to claim [[3]] 1, wherein the monovalent cation is selected from the group consisting of Na^{+}, K^{+} and Li^{+}.

7. (Previously Presented) A method according to claim 4, wherein, when the polyanion is added to the test sample, the final concentration of the polyanion is 10-250 U/mL for heparin, 0.02-1.25% for dextran sulfate and 0.02-1.25% for phosphotungstic acid.

8. (Previously Presented) A method according to claim 5, wherein, when the divalent cation is added to the test sample, the final concentration of the divalent cation is 2.5-35 mmol/L for Mn^{2+}, 2.5-125 mmol/L for Mg^{2+} and 1-75 mmol/L for Ca^{2+}.

9. (Cancelled)

10. (Currently Amended) A method for quantifying small particle LDL in a test sample, comprising:

(i) removing lipoproteins other than small particle LDL and HDL from said test sample by adding a separation agent consisting of PEG; ~~and then~~

(ii) eliminating HDL by treating the test sample from step (ii) with cholesterol esterase and cholesterol oxidase in the presence of a surface active agent, wherein the surface active agent is polyalkylene oxide; and

(iii) quantifying small particle LDL in ~~said~~ the test sample from step ~~(i)~~ (ii) by measuring the amount of LDL;

~~wherein step (i) comprises adding PEG to said test sample~~.

11. (Previously Presented) A method according to claim 10 wherein the final concentration of PEG is 2-5% by weight when PEG is added to the test sample.

12. (Previously Presented) A method according to claim 1, wherein measuring the amount of LDL is carried out by using a reagent which is used for selectively measuring cholesterol in LDL and which does not require fractionation.

13. (Previously Presented) A method according to claim 1, wherein measuring the amount of LDL is carried out by using a reagent which is used for selectively measuring triglycerides in LDL and which does not require fractionation.

14. (Previously Presented) A method according to claim 1, wherein measuring the amount of LDL is carried out by using an anti-human apoprotein B antibody.

15. (Currently Amended) A method for separating small particle LDL from a test sample that contains LDLs, comprising precipitating LDLs other than small particle LDL by adding a separation agent comprising ~~a polyanion and a divalent cation~~ a monovalent cation at a final concentration of less than 50 mmol/L to the test sample.

16. (Currently Amended) A method according to claim 15, wherein said separation agent further comprises ~~a monovalent cation~~ a polyanion and a divalent cation.

17. (Currently Amended) A method according to claim [[15]] 16, wherein the polyanion is selected from the group consisting of heparin, phosphotungstic acid and dextran sulfate.

18. (Currently Amended) A method according to claim [[15]] 16, wherein the divalent cation is selected from the group consisting of Mn^{2+}, Mg^{2+} and Ca^{2+}.

19. (Previously Presented) A method according to claim 15, wherein the monovalent cation is selected from the group consisting of Na^{+}, K^{+} and Li^{+}.

20. (Previously Presented) A method according to claim 17, wherein, when the polyanion is added to the test sample, the final concentration of the polyanion is 10-250 U/mL for heparin, 0.02-1.25% for dextran sulfate and 0.02-1.25% for phosphotungstic acid.

21. (Previously Presented) A method according to claim 18, wherein, when the divalent cation is added to the test sample, the final concentration of the divalent cation is 2.5-35 mmol/L for Mn^{2+}, 2.5-125 mmol/L for Mg^{2+} and 1-75 mmol/L for Ca^{2+}.

22. (Cancelled)

23. (Previously Presented) A method for separating a small particle low density lipoprotein from a test sample that contains LDLs, comprising precipitating LDLs other than small particle LDL by adding PEG to the test sample.

24. (Previously Presented) A method according to claim 23, wherein the final concentration of PEG is 2-5% by weight when PEG is added to the test sample.

25.-36. (Cancelled)

37. (New) A method according to claim 1, wherein the surface active agent is selected from the group consisting of polyoxyethylene lauryl ether, polyoxyethylene cetyl ether, polyoxyethylene octylphenyl ether and polyoxyethylene nonylpheny ether.

38. (New) A method according to claim 10, wherein the surface active agent is selected from the group consisting of polyoxyethylene lauryl ether, polyoxyethylene cetyl ether, polyoxyethylene octylphenyl ether and polyoxyethylene nonylpheny ether.